



Maximum Permissible Exposure Evaluation

FCC ID: WNA-HPR305

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) Radiation as specified in §1.1307(b).

EUT Specification

Product Name:	UHD OTT Stick
Trade Mark:	SKYWORTH, STRONG, QVWI, COOCOA, MECOOL, Blaupunkt, EKO
Model/Type Reference:	HPR3B
Listed Model(s):	HPR309, HPR305, BPTV30, BPTV30G, BPTV10G, HPR323, MEgo1 4K, MEgo1 PRO
Model Differences:	Only the models name is different, while the internal circuits, wireless modules and antennas are exactly the same.
Frequency Band (Operating)	BT: 2402MHz ~ 2480MHz BLE: 2402MHz ~ 2480MHz WLAN: 2412MHz ~ 2462MHz U-NII-1: 5180MHz ~ 5240MHz U-NII-2A: 5260MHz ~ 5320MHz U-NII-2C: 5500MHz ~ 5700MHz U-NII-3: 5745MHz ~ 5825MHz
Device Category	☐ Portable (<5mm separation) ☐ Mobile (>20cm separation) ☒ Fixed (>20cm separation) ☐ Others ____
Exposure Classification	☐ Occupational/Controlled exposure ($S=5\text{mW}/\text{cm}^2$) ☒ General Population/Uncontrolled exposure ($S=1\text{mW}/\text{cm}^2$)
Antenna Diversity	☐ Single antenna ☒ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity
Antenna Gain (Max)	BT: 4.83dBi WLAN: Ant1: 2.35dBi; Ant2: 4.83dBi RLAN: Ant1: 5.8dBi; Ant2: 4.38dBi
Evaluation Applied	☒ MPE Evaluation ☐ SAR Evaluation

CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhui Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-066_A2

For anti-fake verification, please visit the official website of China Inspection And Testing Society : yz.cncaq.com

**Limits for Maximum Permissible Exposure (MPE)**

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
(A) Limits for Occupational/Controlled Exposure				
300-1500	--	--	F/300	<6
1500-100000	--	--	5	<6
(B) Limits for General Population/Uncontrolled Exposure				
300-1500	--	--	F/1500	<30
1500-100000	--	--	1	<30

Calculation Method

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where:

P_d = Power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d limit of MPE is 1mW/cm². If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Measurement Result

Mode	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Tune Up Tolerance (dB)	Max. Tune Up Power (dBm)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)
BT/EDR	2441	4.83	4.82	± 1	5.82	0.00231	1
BLE 1M	2402	4.83	6.08	± 1	7.08	0.00309	1
WLAN 802.11n20	2437	4.83	26.56	± 1	27.56	0.34494	1
RLAN U-NII-1 802.11n20	5200	5.8	16.72	± 1	17.72	0.04474	1
RLAN U-NII-2A 802.11n20	5280	5.8	15.43	± 1	16.43	0.03325	1
RLAN U-NII-2C 802.11a ant2	5700	4.38	16.23	± 1	17.23	0.02882	1
RLAN U-NII-3 802.11n20	5825	5.8	18.3	± 1	19.3	0.06438	1

The WLAN and BT can transmit simultaneously.

WLAN Power density at 20cm (mW/cm ²)	BT Power density at 20cm (mW/cm ²)	Total Power density at 20cm (mW/cm ²)	Power density Limit (mW/cm ²)
0.34494	0.00309	0.34803	1

Note:

1. Calculate in the worst-case mode.
2. Max. Tune Up Power is declared by manufacturer, and used to calculate.
3. For a more detailed features description, please refer to the RF Test Report.

*****THE END*****

CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhua Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn

TRF No: CTC-TR-066_A2

For anti-fake verification, please visit the official website of China Inspection And Testing Society : yz.cncaq.com